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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* VALENTINA PULNIKOVA

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Appeal 2014-008062  
Application 12/821,495<sup>1</sup>  
Technology Center 3600

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Before JOSEPH A. FISCHETTI, NINA L. MEDLOCK, and  
BRUCE T. WIEDER, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 2–4. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

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<sup>1</sup> Appellant identifies the inventor as the real party in interest. (Br. 1).

## THE INVENTION

Appellant claims a system and method of a global electronic job market in the internet. (Spec. ¶ 2).

Claim 2, reproduced below, is representative of the subject matter on appeal.

2. A method of operation of system of global electronic job market for jobseekers and employers in the Internet, comprising the combination at least of following steps:

a) creating a group of related data tables of an International Classification of Specialities, where the International Classification of Specialities represents by itself a tree-like structure with names and corresponding codes of branches and sub-branches of main types of activity of the person, where final branches of the tree represent names of specialities;

b) creating a group of related data tables of an International Classification of Job Positions, where the International Classification of Job Positions represents by itself a tree-like structure with names and corresponding codes of the basic groups and subgroups of job positions, where final branches of the tree represent names of job positions;

c) forming a database of information about job seekers on the basis of data provided by themselves, where a name of his speciality and qualification the jobseeker specifies according to the International Classification of Specialities and where a name of desired job position the jobseeker specifies according to the International Classification of Job Positions and where the database of information about jobseekers represents a group of related tables of data, where a group of fields, in which information about specialities is contained, represents foreign keys, related with primary keys of all tables of the International Classification of Specialities, and where a group of fields, in

which information about job positions is contained, represents foreign keys, related with primary keys of all tables of the International Classification of Job Positions;

d) forming a database of information about offers of employers on the basis of data provided by themselves, where a name of proposed job position the employer specifies according to the International Classification of Job Positions and where a name of required speciality and qualification for said job position the employer specifies according to the International Classification of Specialities and where the database of information about offers of employers represents a group of related tables of data, where a group of fields, in which information about job positions is contained, represents foreign keys, related with primary keys of all tables of the International Classification of Job Positions and where a group of fields, in which information about specialities is contained, represents foreign keys, related with primary keys of all tables of the International Classification of Specialities;

e) forming a request for searching of an information about job vacancies by jobseeker, where a name of his speciality and qualification in a form of request the jobseeker specifies according to the International Classification of Specialities and where the jobseeker specifies a name of desired job position in a form of request according to the International Classification of Job Positions;

f) forming a request for searching of an information about needed employees by employer, where a name of proposed job position in a form of request the employer specifies according to the International Classification of Job Positions and where the employer specifies a name of required speciality and qualification for said job position in a form of request according to the International Classification of Specialities;

g) searching of job vacancies according to a request of a jobseeker and selection of corresponding information from the

database of offers of employers, when a code of speciality in request of the jobseeker and a code of speciality in the database of offers of employers represent related information on the basis of the International Classification of Specialities and when a code of job position in request of the jobseeker and a code of job position in the database of offers of employers represent related information on the basis of the International Classification of Job Positions;

h) forming a file of results of search on the basis of a request of a jobseeker, the structure of which completely corresponds to the structure of the database of offers of employers and which completely corresponds to request of the jobseeker;

i) searching of needed employees according to a request of a[n] employer and selection of corresponding information from the database of jobseekers, when a code of speciality in request of the employer and code of speciality in the database of jobseekers represent related information on the basis of the International Classification of Specialities and when a code of job position in request of the employer and a code of job position in the database of jobseekers represent related information on the basis of the International Classification of Job Positions;

j) forming a file of results of search on the basis of a request of a[n] employer, the structure of which completely corresponds to the structure of the database of information about jobseekers and which completely corresponds to request of the employer;

k) sorting of data from a file of results of search on the basis of selected by a user of criterion of sorting, where criteria of sorting comprise: a job position according to the International Classification of Job Positions; a country, a region and a city; a qualification according to the International Classification of Specialities; a salary; an experience of work; a

type of work; a level of education; a scientific degree; a level of knowledge of languages; an age; a sex;

l) selecting of data from a file of results of search;

m) holding a competition for vacant job position (tender) by an employer.

### THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Wong	US 2001/0049615 A1	Dec. 6, 2001
Singh	US 2005/0149538 A1	July 7, 2005
Vianello	US 7,424,438 B2	Sept. 9, 2008
Hill	US 8,001,057 B1	Aug. 16, 2011

The following rejections are before us for review.<sup>2</sup>

Claim 3 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 2–4 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claim 2 under 35 U.S.C. § 103(a) as unpatentable over Vianello and Singh.

Claim 3 under 35 U.S.C. § 103(a) as unpatentable over Vianello, Singh, and Hill.

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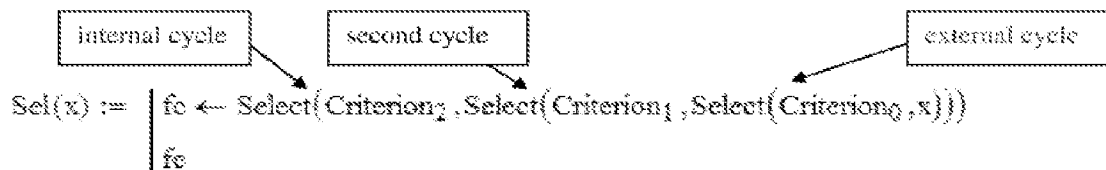
<sup>2</sup> The Examiner withdrew the rejection of claims 2–4 under 35 U.S.C. § 112, second paragraph. (Answer 2).

Claim 4 under 35 U.S.C. § 103(a) as unpatentable over Vianello, Singh, Wong, and Official Notice.

### FINDINGS OF FACT

1. We adopt the Examiner’s findings as set forth on pages 4–5 of the Final Rejection concerning the 35 U.S.C. § 112, first paragraph, rejection, and on pages 9–10 of the Final Action concerning the rejection under 35 U.S.C. § 101.

2. Appellant presents the below block scheme of algorithm to rebut the 35 U.S.C. § 112, first paragraph, rejection as set forth on page 67 of the Brief.



Above is a block scheme of algorithm as set forth on page 67 of the Appeal Brief.

3. The formula (FF. 2) was not part of the Specification as originally filed.

### ANALYSIS

#### 35 U.S.C. § 101 REJECTION

We will affirm the rejection of claims 2–4 under 35 U.S.C. § 101. As a preliminary note, Appellant, in several instances in the Brief, asserts “plagiarism” on the part of the Office. (*See, e.g.*, Br. 73, 76, 77, 86, 87, 88,

93, 98, 99, 100). This is a misdirected approach on appeal before this Board. The argument is not responsive to any rejections and will not be considered. Rather, we follow the appropriate statutes and precedents. Accordingly, and in view of the precedential decisions cited below, we affirm the Examiner's rejection of claims 2–4 under 35 U.S.C. § 101.<sup>3</sup>

Appellant argues the 35 U.S.C. § 101 rejection by applying a machine-or-transformation test of data. (Br. 87–89). In so doing, Appellant argues,

It is said in Claim 2 of my invention about forming the database of the information about jobseekers and about forming the database of the information about offers of employers. These data about jobseekers and about offers of employers were isolated and were not structured data before the forming of said databases of jobseekers and employers. The forming of above mentioned databases is not a simple displacement of these data. These data are [sic] became structured data during the process of the forming of these databases. The structuring of information in these databases gives possibility of a future automatic search, a sorting and a selecting of information. These databases are relational databases. The name of specialities and name of job positions are got through these databases from the International Classification of Specialities and from the International Classification of Job Positions.

(Br. 89).

We disagree with Appellant because storing data in a given

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<sup>3</sup> **35 U.S.C. § 101** Inventions patentable. Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.



arrangement such as in a relational database does not change the essence of the data. The data still remain the same data. Calling the data “structured” only refers to the way the same data are stored. The Supreme Court clarified, in *Bilski v. Kappos*, 130 S. Ct. 3218 (2010), that the machine-or-transformation test “is not the sole test for deciding whether an invention is a patent-eligible ‘process’ [under § 101].” *Id.* at 3227. But, the Court did not state, or otherwise suggest, that failure to satisfy the machine-or-transformation test creates a presumption that a claimed method is directed to patent-ineligible subject matter.

More recently, in *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014), the Supreme Court further clarified the law regarding patentable subject matter. In doing so, the Supreme Court reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1300 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of these concepts.” *Alice Corp.*, 134 S. Ct. at 2355.

Appellant argues, *inter alia*,

Thus, the “*abstract idea*” “*doesn't have a clear applicability to real life*” and “*doesn't pictorially represent reality*”. There is not any reason to consider the real Web sites, which in reality exist in the Internet, as “*abstract ideas*”.

The method of operation of the system of the global electronic job market in the Internet is a real method, which can be realized in reality, because the systems of searching of job vacancies are widely used in the Internet. The method of

operation of the system of the global electronic job market in the Internet is absolutely not the idea, which “*doesn't have a clear applicability to real life*” and “*doesn't pictorially represent reality*”. Based on the logic of the examiner, all Web sites, which really exist and really work in the Internet, and which are connected with the job market, actually don't exist, and they “*don't have a clear applicability to real life*” and “*doesn't pictorially represent reality*”. It is full absurdity.

(Appeal Br. 80).

We disagree with Appellant because the Supreme Court has spoken on the legal standard for patent eligibility, and claims 2–4 do not pass the tests set forth by the Supreme Court's standards.

The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” *id.*, e.g., to an abstract idea. If the claims are not directed to one of those patent-ineligible concepts, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice Corp.*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 132 S. Ct. at 1293. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the

abstract idea and merely invoke generic processes and machinery.

*See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

Applying the framework set forth in *Alice*, and as the first step of that analysis, we find that the claims are directed to the abstract idea of the “structuring” of information — a finding that also is fully consistent with the Specification (*see* Spec. ¶ 10 (stating that, “First of all, it is necessary to structure the main data...”)).

Claim 2, the sole independent claim before us, recites, *inter alia*, a method comprising the steps of:

- creating a group of related data tables of a Classification, where the Classification represents by itself a tree-like structure with branches and sub-branches and final branches of the tree represent names of specialities;
- creating a group of related data tables of the Classification where the Classification represents by itself a tree-like structure with names and corresponding codes of the basic groups and subgroups of job positions, where final branches of the tree represent names of job positions;
- forming a database of information about job seekers the jobseeker specifies according to the Classification and where the database of information about jobseekers represents a group of related tables of data, where a group of fields, in which information about specialities is contained, represents foreign keys, related with primary keys of all tables of the Classification a group of fields, in which information about job positions is contained, represents foreign keys, related with primary keys of all tables of the Classification of Job Positions;

- forming a database of information about offers of employers according to the International Classification of Job Positions and where the database of information about offers of employers represents a group of related tables of data, where a group of fields, in which information about job positions is contained, represents foreign keys, related with primary keys of all tables the Classification and where a group of fields, in which information about specialities is contained, represents foreign keys, related with primary keys of all tables of the Classification;
- forming a request for searching of an information about job vacancies by jobseeker, where a name of jobseeker speciality and qualification in a form of request specifies according to the Classification;
- forming a request for searching of an information about needed employees by employer, where a name of proposed job position in a form of request the employer specifies according to the Classification and where the employer specifies a name of required speciality and qualification for said job position in a form of request according to the Classification;
- searching of job vacancies according to a request from the database of offers, when a code of speciality in request of the jobseeker and a code of speciality in the database of offers of employers represent related information on the basis of the Classification and when a code of job position in request of the jobseeker and a code of job position in the database of offers represent related information on the basis of the Classification;
- forming a file of results of search on the basis of a request of a jobseeker, the structure of which completely corresponds to the structure of the database of offers of employers and which completely corresponds to request of the jobseeker;

- searching of needed employees according to a request from the database of jobseekers, when a code of speciality in request of the employer and code of speciality in the database of jobseekers represent related information on the basis of the Classification and when a code of job position in request of the employer and a code of job position in the database of jobseekers represent related information on the basis of the Classification;
- forming a file of results of search on the basis of a request of an employer, the structure of which completely corresponds to the structure of the database of information about jobseekers and which completely corresponds to request of the employer; and
- sorting of data from a file of results of search on the basis of selected by a user of criterion of sorting.

The limitations above, all involve acts that could be performed by a human, i.e., either mentally, or manually using pen and paper, without the use of a computer or any other machine, i.e., creating, forming a database/ compilation, requesting, searching, gathering results in a file, and matching like criteria. The thought process involved here is “to carry out structuring” of information (Specification ¶ 10) resulting in “the operation of the global electronic job market.” (*Id.* ¶ 12). Hiring of qualified personnel is a fundamental economic practice because it is the basis of how work gets done in society.

The law is clear that “[a] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011); *see also Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)

(“[p]henomena of nature . . . , mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”). Moreover, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *CyberSource*, 654 F.3d at 1375 (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.”).

Turning to the second step of the *Alice* analysis, because we find that claim 2 is directed to an abstract idea, the claim must include an “inventive concept” in order to be patent-eligible, i.e., there must be an element or combination of elements that is sufficient to ensure that the claim in practice amounts to “significantly more” than the abstract idea itself. Here, claim 2 refers generally to “the Internet” and, in some part, claim 3, refers to a device, i.e., a host server. But, the body of these claims merely refers to these in general terms.

Nothing in claims 2–4 purports to improve computer functioning or “effect an improvement in any other technology or technical field.” *Alice*, 134 S. Ct. at 2359. Nor do the claims solve a problem unique to the Internet. *See DDR Holdings LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). Claim 2 also is not adequately tied to “a particular machine or apparatus.” *See Bilski v. Kappos*, 561 U.S. 593, 601 (2010).

Because we find that dependent claims 3 and 4 lack additional elements that would render the claims patent-eligible and because claim 2 is directed to an abstract idea and nothing in the claim adds an inventive concept, claims 2–4 are not patent-eligible under § 101.

### 35 U.S.C. § 103 REJECTIONS

We will not sustain the rejections of claims 2–4 under 35 U.S.C. § 103.

Claim 2, the sole independent claim before us, requires at section j):

forming a file of results of search on the basis of a request of a[n] employer, the structure of which completely corresponds to the structure of the database of information about jobseekers and which completely corresponds to request of the employer;

The Examiner found that this limitation is disclosed by Vianello, stating: “(See at least Fig. 10 and associated text, Col. 42, lines 6-24; See also Col. 43, lines 33-43 & lines 55-64, forming a file of results of the search which corresponds to an employer search request).” (Final Act. 14).

Appellant argues,

according to the patent US 7,424,438, "search results" contain "*talent profile*", "*search results*" are provided in a structured format and "*search results*" satisfy with "*all of the criteria as set forth in connection with employer-provided talent profile search parameters*". No other information about "*search results*" is present in the Col. 42, lines 6-24, Col. 43, lines 33-43 and Col. 43, lines 13-16 of the patent US 7,424,438 "Apparatus and methods for providing career and employment services" by Vianello.

(Br. 240).

We agree with Appellant. Our review of Vianello at the sections cited by the Examiner reveals that in these sections, Viannello discloses saving “each employer-specified search routine,” and/or “the employer identified a talent profile via a self-search.” Vianello, col. 43, ll. 37–40. The Examiner has not explained, nor is it apparent, how “each employer-specified search routine,” and/or “the employer identified a talent profile via a self-search,” which are self-tailored searches, equates to or makes obvious, the claimed *forming a file of results of search on the basis of a request of an employer, the structure of which completely corresponds to the structure of the database of information about jobseekers and which completely corresponds to a request of the employer*. Also, even though Vianello discloses an automatic search (*see* col. 43, ll. 33–35), there is no indication in what form the automatic search is saved.

Because claims 3 and 4 depend from claim 2, and because we cannot sustain the rejection of claim 2, the rejection of claims 3 and 4 likewise cannot be sustained.

#### 35 U.S.C. § 112, FIRST PARAGRAPH, REJECTION

We will sustain the rejection of claim 3 under 35 U.S.C. § 112, first paragraph.

The Examiner rejected claim 3 under 35 U.S.C. § 112(a) or 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. In so doing the Examiner found,

Amended claim 3 recites “the algorithm of selecting consists of enclosed cycles and where the criterion of selecting on an



external cycle will possess the highest priority and the criterion of selecting on an internal cycle will possess the lowest priority;” however, the specification does not describe the steps of the algorithm or how the algorithm is carried out. The limitation claimed is found in the disclosure at paragraph [0069], but there is no explanation related to the steps of the algorithm. Paragraph [0067] describes the algorithm of sorting according to the name of the country, region and a city will be enclosed. The paragraph further states an external cycle of sorting according to country will be made, a following cycle of sorting according to region will be made and the last cycle sorting according to city will be made. Is this just one example of “enclosed cycle” sorting, since the paragraph goes on to describe sorting according to salary, work type, etc., or is this intended to be the algorithm claimed? As described, the disclosure in paragraph [0067] to not described [sic] how the algorithm is carried out, nor does it adequately describe how priority is given to the cycles. Paragraph [0067] describes an order of sorting, not an assignment of priority. It would be unclear to one of ordinary skill in the art how to perform the algorithm claimed based on specification filed.

(Final Act. 4–5).

Appellant argues, *inter alia*, that,

The phrase “***external cycle***” is also the well-known concept for persons, which are the specialists with ordinary skill in field of informatics and computer programming. This phrase means the cycle, which is situated from outside of other cycles. Thus, this phrase does not need any additional explanation in the specification.

Once again, I present below the block scheme of algorithm with enclosed cycles. [FF. 2.]

(Br. 66–67).

As one can see, the concepts “*internal cycle*” and

“*external cycle*” are ***the quite elementary things*** for students of universities. Therefore, these concepts are well-known for persons, which are the specialists with ordinary skill in field of informatics and computer programming.

(Br. 67).

We disagree with Appellant. “To satisfy this requirement, the specification must describe the invention in sufficient detail so ‘that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.’” *In re Alonso*, 545 F.3d 1015, 1019 (Fed. Cir. 2008) (citations omitted). An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

The formula (FF. 2) which Appellant presents in the Appeal Brief at page 67 was not part of the Specification as originally filed (FF. 3). We find the formula (FF. 2) is sufficient in detail to address the Examiner’s inadequacy finding of the Specification, e.g., “the disclosure in paragraph [0067] to [*sic* does] not describe[] how the algorithm is carried out, nor does it adequately describe how priority is given to the cycles.” (Final Act. 5). But, again this formula was not part of the Specification as originally filed. (FF. 3). We are not persuaded by the Appellant’s argument that, “[a]s one can see, the concepts ‘internal cycle’ and ‘external cycle’ are the ***quite elementary things*** for students of universities” (Appeal Br. 67)

because one having ordinary skill in the art is not definable by way of credentials, e.g., a student of a university. *Ex parte Hiyamizu*, 10 USPQ2d 1393, 1394 (BPAI 1988).”

Other than making the general statement that the subject equation involves “*quite elementary things* for students of universities” (Appeal Br. 67), Appellant fails to produce evidence of other factors which help determine the skill level of one having ordinary skill in the art. (The person of ordinary skill in the art is a hypothetical person who is presumed to know the relevant prior art. *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986).) In determining this skill level, the Board may consider various factors including “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *Id.* Appellant does not present persuasive evidence that one of ordinary skill in the art would have understood that the inventor, as of the filing date, was in possession of the claimed invention.

Accordingly, we sustain the rejection of dependent claim 3 under 35 U.S.C. § 112(a) or 35 U.S.C. § 112 (pre-AIA), first paragraph.

#### CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claim 3 under 35 U.S.C. § 112(a) or 35 U.S.C. § 112 (pre-AIA), first paragraph.

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Application 12/821,495

We conclude the Examiner did not err in rejecting claims 2–4 under 35 U.S.C. § 101.

We conclude the Examiner did err in rejecting claims 2–4 under 35 U.S.C. §103.

#### DECISION

The decision of the Examiner to reject claims 2–4 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED